Journal Assignment 3

Math 203 Contemporary Mathematics

Due on October 5

This assignment is about making estimates, estimates with reason. For each of the four questions below you must come up with an answer. To do so, you may have to make extra assumptions and look up info. Your solution must explain how you arrived at the answer, i.e. which extra assumptions you made, what data your calculations are based on etc.

1. How big is India? Would the country fit inside one of the 50 United States?

2. My password is 7 characters long. How many different possible 7-character passwords are there? How long would it take a hacker to guess my password by just trying all possible combinations? (I.e using a "Brute Force" method.)

3. How thick is a sheet of paper? How many do you need to stack to make the height of the Empire State Building?

4. The price of gas in Denmark is currently about 10 DKK per liter; how does that compare to gas prices here?

Submit your journal by e-mail (not attachment) to `winther@math.unl.edu` by midnight on the due date.